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To: GEORGE PAPADOPOULOS EPA OFFICE ECOSYSTEM PROTECTION

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To: Mr. George Papadopoulos, EPA Office of Ecosystem Protection. 5 Post Office Sq., Suite 100 (OEP06-1), Boston, MA 02109-3912.

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Please accept and make part of the record the following comments regarding Pilgrim Nuclear Power Station's draft EPA Clean Water Act "NPDES" permit.

From John Nichols, East Orleans, MA. Full contact info at end of comments:
Date submitted: by email, July 20, 2016; by fax, July 23, 2016

Summary:

1) Pilgrim's current permit allowing use of its outdated 'once-through cooling system' should be terminated.
2) Stricter conditions and a strengthened NPDES permit should apply for the remaining years of operations and throughout decommissioning. The new permit should require power production to cease prior to any re-fueling, and emphasize regulation of site decommissioning and decontamination after power production. The new permit should become effective as soon as possible, no later than spring 2017
3) EPA must prevent not only ongoing pollutant discharges into Cape Cod Bay, but also the increased pollutant discharges expected because of climate change. Warming seas, sea level rise, storms, flooding, and increased precipitation are likely to cause further pollutant discharges into Cape Cod Bay and/or exacerbate effects of thermal pollution and impingement/entrainment.
4) EPA should specify that the permit must not be transferred to another company without public review process. This should apply to any transfer, including for another use at the site.

Compliance

EPA (and MassDEP) must hold Entergy accountable for past violations (1) and ensure compliance with all requirements of the new permit in order to effectively reduce impacts from Pilgrim's activities and to protect Cape Cod Bay.

EPA should explicitly require all effluent testing be reported publicly in monthly discharge monitoring reports so that EPA and the public are able to assess whether requirements are being met.

(1) Past violations: Entergy's noncompliance with the current permit has included exceeding effluent limits for a variety of pollutants, disbanding the required Pilgrim Administrative-Technical Committee (PATC) that watched over marine impacts, and not carrying out required storm drain testing for nearly a decade. Enforcement of requirements has been mostly nonexistent.

Pollutant Discharges & Monitoring

Effluent limits should be reduced and new limits set for pollutants not in the previous permit.

EPA should monitor storm drain testing with heightened scrutiny and be prepared to enforce when testing is not done or limits are exceeded. That is particularly needed because Entergy failed to test storm drains for about 10 years. Penalties should be pre-determined and automatically assessed, with particular attention to egregious exceedances or unpermitted discharges. Although EPA's design of the storm drain sampling regime and increased frequency of sampling is appropriate, Entergy's lack of adherence needs to be ended.

Outfall 013, which drains to Cape Cod Bay during extreme storm events, should be included in the final permit and effluent limits should apply. This is essential given consensus that more intense storms and flooding will increasingly impact the Northeast, and therefore Pilgrim.

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Stormwater yard drains should be fitted with backflow prevention to avoid flushing of contaminants into the sea, and need consistent will require proper monitoring, particularly because pollu ants are likely to increase due to climate-change caused increased flooding, sea levels and groundwater ris , thus increased runoff.

EPA needs to require sampling of all water to be discharged into Cape Cod Bay a d removal of all known contaminants prior to discharge, including total suspended solids, cyanide, pheno , phthalates, PCBs, antimony, iron, copper, zinc, lead, nickel, cadmium, and hexavalent chromium. Th draft permit needs to be amended to include all these contaminants. EPA should test all 25 electrical vaults (contaminants were found in seven), develop a complete list of parameters, then this complete list should be ncluded in final permit.

Moreover, radionuclides in the discharge water, not mentioned in the draft permit, eed to be eliminated or sharply reduced before water is discharged.to be eliminated EPA needs to take j risdiction seeking legislation if necessary.

Cooling Water Intake System

Pilgrim's 'once-through cooling system' is not best technology available and shoul no longer be permitted. EPA should require shutdown until a closed-cycle cooling system is installed.

If EPA is unwilling to require closed-cycle cooling under the new permit, then a Be udrey WIP system should be designed to retrofit Pilgrim and be installed at the earliest opportunity. This syst m could be required for the period post shutdown.

In the revised permit water use is reduced from 510 MGD to 447 MGD before shu down: this reduction is appropriate, but there should be an established end date for water withdrawals. Pr or to refueling in spring 2017 is a prudent time.

After Pilgrim shuts down, the draft permit reduces intake to a maximum of 224 MG daily, and an average of 11.2 MGD monthly. EPA must provide a justification for the large maximum daily w hdrawal limit.

Thermal Pollution

The 32°F allowed temperature range, based on a previous variance. is excessive nd should be denied.

That variance is based on a flawed 'Demonstration Report' that relies on outdated nd incomplete data, an outdated list of "representative important species," and does not consider changes n Cape Cod Bay such as invasive species, northern migration of species, and ocean warming and acidificati n. Until thermal impacts are reassessed in light of current information and new thermal plume modeling is done the variance should be denied.

After shutdown, temperature rise is reduced from 32°F to 3°F. This reduced limit se ems arbitrary and should instead meet MA State Water Quality Standards (MA SWQS) limit of 1.5°F. EPA d es not present evidence of the cause of a 3°F increase. In order to effectively set thermal limits, EPA should cl arly determine and outline which activities will create thermal effluent at outfall 001.

For backwash operations, until shutdown the temperature limit should not be allow d to be 115°F, but should meet the lower MA SWQS. If Pilgrim cannot meet that, impacts from its thermal efl ent should be reassessed in light of global warming and more current information. A new Demonstration Rep rt should be required before a variance is granted.

For outfall 010, EPA decision to set temperature limits that meet the MA SWQS is s pported, but EPA should use 1.5°F instead of 3°F as the allowed temperature rise.

Biological Monitoring & Endangered Species

EPA should require Entergy to fund a mitigation account for restoration and monitoring work in Cape Cod Bay and nearby estuaries throughout the decommissioning process, to monitor for ecosystem changes due to global warming and climate change and adjust its operations to fully protect those waters.

EPA should require the PATC to be reinstated immediately so that it may provide much needed oversight for marine impacts, and help guide practical adjustments and mitigation efforts during the remainder of operations as well as during decommissioning.

EPA needs to stop the annual killing of billions of aquatic organisms by Pilgrim's cooling water withdrawals. This killing has indirect, ecosystem-level effects, including disruption of aquatic food webs, nutrient cycles, biodiversity and other effects. These impacts warrant dedicated monitoring and mitigation for at least 10 years after shutdown and certainly until decommissioning is complete (up to 60 yrs.) Entergy incorrectly claims that this mortality level is not of a magnitude to constitute an adverse environmental impact.

Section 7 re-initiation by NOAA Fisheries would be appropriate given that EPA is revising Pilgrim's NPDES permit, the newly established, expanded critical habitat area for North Atlantic right whales in Cape Cod Bay, the fact that endangered right whales are being sighted in the western part of the Bay with more frequency, the current special concern status of rainbow smelt, and the on-going monitoring of river herring.

Impingement/entrainment monitoring should be required until the spent fuel pool is no longer used, and the intake system is shut down permanently; winter flounder studies should be mandated to continue after shutdown to monitor improvements to populations; Entergy should be required to study and mitigate impacts from Pilgrim's 40-plus years of operations, including at least 10 years after shutdown and until decommissioning is complete (up to 60 years after shutdown).

Rainbow smelt studies should be reestablished. Entergy no longer carries out rainbow smelt studies, despite Pilgrim continuing to impinge and entrain them with impunity. One study estimates that more than 1,300,000 rainbow smelt are killed each year.

Entergy should be required to monitor for ecosystem changes due to global warming and climate change to fully understand the impact of Pilgrim's operations.

The above comments are submitted by:

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